

What is claimed is:

1. An ISDN rerouting device provided with a first and a second IP-based PBX systems that are connected to a first or a second telephone terminal, respectively, via telephone lines, and further, that are connected to each other via an IP network and ISDN; wherein:

said first and second IP-based PBX systems establish a communication call between said first telephone terminal and said second telephone terminal via said ISDN when congestion occurs in said IP network.

2. An ISDN rerouting device according to claim 1 wherein said first and second IP-based PBX systems are provided with:

- an LC (line circuit) for linking with said first or said second telephone terminal;

a TDSW (time division switch) for switching connection paths;

- an IP-TRK (trunk circuit) for both interfacing with said IP network and detecting the occurrence of congestion in said IP network;

an ISDN I/F for interfacing with said ISDN; and

a CPU for controlling switching of said TDSW (time division switch) when said IP-TRK (trunk circuit) detects the occurrence of congestion in said IP network.

3. An ISDN rerouting device according to claim 1 wherein said CPU establishes a communication call between said first telephone terminal and said second telephone terminal based on information stored in a memory.

4. An ISDN rerouting device according to claim 2 wherein said CPU establishes a communication call between said first telephone terminal and said second telephone terminal based on information stored in a memory.

5. An ISDN rerouting device according to claim 3 wherein said memory stores:

a mapping table containing IP addresses and ISDN addresses; and

5 a rerouting information table containing:

originating telephone numbers or calling party numbers, destination telephone numbers or called party numbers, IP addresses of destination IP-TRK, and ISDN addresses that correspond to IP addresses of destination  
10 IP-TRK.

6. An ISDN rerouting device according to claim 4 wherein said memory stores:

a mapping table containing IP addresses and ISDN addresses; and

5 a rerouting information table containing:  
originating telephone numbers or calling party  
numbers, destination telephone numbers or called party  
numbers, IP addresses of destination IP-TRK, and ISDN  
addresses that correspond to IP addresses of destination  
10 IP-TRK.

7. An ISDN rerouting method that is provided  
with: first and second IP-based PBX systems that are both  
connected to a first or a second telephone terminal,  
respectively, via telephone lines and that are connected  
5 to each other via an IP network and ISDN; and that  
reroutes to said ISDN when congestion occurs in said IP  
network; comprising:

a first step of establishing, by means of said first  
and second IP-based PBX systems, a communication call  
10 between said first telephone terminal and said second  
telephone terminal via said ISDN when congestion occurs  
in said IP network.

8. An ISDN rerouting method according to claim 7  
wherein said first step comprises:

a second step of linking with said first or second  
telephone terminal by means of an LC (line circuit);  
5 a third step of switching the connection path by  
means of a TDSW (time division switch);

a fourth step of both interfacing with said IP network and detecting the occurrence of congestion in the IP network by means of an IP-TRK (trunk circuit);

10 a fifth step of interfacing with said ISDN by means of an ISDN I/F; and

a sixth step of effecting switching control of said TDSW (time division switch) by means of a CPU when said IP-TRK (trunk circuit) detects the occurrence of  
15 congestion in said IP network.

9. An ISDN rerouting method according to claim 8 wherein said sixth step includes a seventh step of establishing a communication call between said first telephone terminal and said second telephone terminal  
5 based on information that is stored in memory.

10. An ISDN rerouting method according to claim 9 wherein said seventh step includes an eighth step of storing in said memory: a mapping table having IP addresses and ISDN addresses; and a rerouting information  
5 table having originating telephone numbers or calling party numbers, destination telephone numbers or called party numbers, IP addresses of destination IP-TRK, and ISDN addresses corresponding to IP addresses of destination IP-TRK.